

BOULDER DAM AND ITS GEOGRAPHICAL SETTING

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When a flood of water rushes down a steep slope, it has a great deal of energy. It is enough to sweep away any obstacle in its path. In the case of the Colorado River, the flood is not only powerful but it is also persistent. The Colorado River, one of the largest rivers in the western United States, flows from the high mountains of the Sierrita Nevada and the Sangre de Cristo range, draws its headwaters from the high mountains in the heart of the continent, crosses a semi-arid region of varied geological structure and breaks loose across a long, dry terrain where its uncontrolled surges are a menace to life and property, before finally reaching its appointed employment of the Pacific.

Boulder Dam itself is only one, though the most important one, of a series of related projects for the regulation of the Colorado. These form part of a comprehensive federal scheme embracing four aspects—flood control, water supply and irrigation, power development, and inland navigation. In the Boulder-Cannon Project, as it is known, the last aspect plays no part. As to the work on which the others are based, it is enough at this point to note that the reservoir will hold two years' supply of the river, amounting to 10,000,000 acre-feet (10,000,000,000 cu ft), will water 1,000,000 acres of irrigable land, and will also serve as a generating plant with a capacity of 212,000 h.p.—two and a half times that of Hooverdam or less than one-third of the American plant at Niagara—adequate to meet the requirements of the whole of the United Kingdom in 1922. The area through which the Colorado and its tributaries is drained by the whole of the map. Of the seven states which have an interest in the river, only one, the westernmost—Colorado, Nevada, and California—has a direct interest in the present scheme.

Between the Rocky Mountains and the Gulf of California the river occupies a region of varied geological make-up. Rising in an upland area of folded strata and intrusive granite, it flows over an expanse of relatively slightly tilted and warped, plutonic structure. Passing across a series of large, steeply tilted, and finally, the Great Basin, where block-faulting gives the typical basin and range topography well shown in Fig. 1.

The Colorado already had a well-defined course before it reached its appointed employment. The channel has since been modified and improved in many respects. The river has been dammed at several points, and its flow has been regulated in many ways. The river has been used for irrigation, and its water has been used for power. The river has been used for navigation, and its water has been used for drinking. The river has been used for many other purposes, and its water has been used for many other purposes.

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